

US EPA ARCHIVE DOCUMENT

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

**RCRA Corrective Action  
Environmental Indicator (EI) RCRIS code (CA725)  
Current Human Exposures Under Control**

**Facility Name:** EKCO Housewares, Inc.  
**Facility Address:** 359 State Ave., Ext. N.W., Massillon, OH 44648-0560  
**Facility EPA ID #:** OHD 045 205 424

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

- If yes - check here and continue with #2 below.  
 If no - re-evaluate existing data, or  
 if data are not available skip to #6 and enter "IN" (more information needed) status code.

**BACKGROUND**

**Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

**Definition of "Current Human Exposures Under Control" EI**

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

**Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPR). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

**Duration / Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **“contaminated”**<sup>1</sup> above appropriately protective risk-based “levels” (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	X			TCE, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, and VC above Federal MCLs
Air (indoors) <sup>2</sup>		X		Periodic monitoring shows no exceedances of OSHA PELs
Surface Soil (e.g., <2ft)	X			TCE above Industrial PRG
Surface Water		X		Site investigation found no contaminants
Sediment		X		Site Investigation found no contaminants
Subsurf. Soil (e.g., >2ft)	X			TCE and 1,1-DCE above Industrial PRG
Air (outdoors)		X		Air monitoring during site investigation found no detectable VOCs

\_\_\_\_\_ If no (for all media) - skip to #6, and enter “YE,” status code after providing or citing appropriate “levels,” and referencing sufficient supporting documentation demonstrating that these “levels” are not exceeded.

X If yes (for any media) - continue after identifying key contaminants in each “contaminated” medium, citing appropriate “levels” (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

\_\_\_\_\_ If unknown (for any media) - skip to #6 and enter “IN” status code.

Rationale and Reference(s):

- Groundwater under the Facility is contaminated with trichloroethylene (TCE), 1,1-dichloroethylene (1,1-DCE), 1,2-dichloroethylene (1,2-DCE), 1,1,1-trichloroethane (1,1,1-TCA), and vinyl chloride (VC) in concentrations that exceed their respective MCL.
- Site-specific risk-based groundwater screening levels for TCE, 1,1-DCE, 1,2-DCE, and 1,1,1-TCA in soil are exceeded under the manufacturing building. The groundwater screening level for TCE in soil is also exceeded along the west side and just east of the manufacturing building.
- Historical data (1988 and 1991) for surface soil shows TCE concentrations exceed the industrial soil

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<sup>1</sup> “Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based “levels” (for the media, that identify risks within the acceptable risk range).

<sup>2</sup> Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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PRG (6,100 ppb) along the west side of the manufacturing building. Recent September 2000 sampling, using the new VOCs in soils sampling method, found TCE concentrations that exceed the industrial soil PRG in surface soil under the north end of the manufacturing building and just east of the building.

- September 2000 sampling found subsurface soil along the west side of the manufacturing building, under the building, and just east of the building that exceeds the industrial soil PRG of 6,100 ppb for TCE. Subsurface soil under the building also exceeds the industrial soil PRG of 120 ppb for 1,1-DCE.

Applicable references are the November 1993 Final CMS, the U.S. EPA Region 5, September 1996 Statement of Basis, the November 2000 Soil Investigation Report, and the May 2001 Second Addendum to the CMS.

3. Are there **complete pathways** between “contamination” and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

<b>“Contaminated” Media</b>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food <sup>3</sup>
Groundwater	NO	NO	NO	NO			NO
Soil (surface, e.g., <2 ft)	NO	YES	NO	YES	YES	NO	NO
Soil (subsurface e.g., >2 ft)				YES			NO

Instructions for Summary Exposure Pathway Evaluation Table:

- Strike-out specific Media including Human Receptors’ spaces for Media which are not “contaminated” as identified in #2 above.
- enter “yes” or “no” for potential “completeness” under each “Contaminated” Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential “Contaminated” Media - Human Receptor combinations (Pathways) do not have check spaces (“\_\_\_”). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

\_\_\_\_\_ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter “YE” status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

  X  

<sup>3</sup> Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

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If yes (pathways are complete for any “Contaminated” Media - Human Receptor combination) - continue after providing supporting explanation.

\_\_\_\_\_ If unknown (for any “Contaminated” Media - Human Receptor combination) - skip to #6 and enter “IN” status code.

Rationale and Reference(s):

Since 1985, two industrial wells (W-1 and W-10) at the Facility have removed contaminated groundwater that is immediately treated on-site by air stripping. The majority of treated groundwater is discharged to Newman Creek; a smaller portion of the treated groundwater is used on-site in the manufacturing process. There is an incomplete pathway since there is no human exposure to the groundwater contaminants (VOCs) which are removed before the water is used. There is no current or reasonably anticipated use of groundwater for drinking purposes. No other water wells are located in the area of contaminated groundwater. The continuous pumping of the two industrial wells has created a cone of depression that captures on-site groundwater and effectively prevents off-site migration of VOCs.

There are potentially complete pathways for surface and subsurface soil at certain locations at the Facility where TCE and 1,1-DCE exceed the industrial soil PRGs.

Applicable references are the November 1993 Final CMS, the U.S. EPA Region 5, September 1996 Statement of Basis, the March 2000 Groundwater Monitoring Report for 1999, and the May 2001 Second Addendum to the CMS.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **“significant”**<sup>4</sup> (i.e., potentially “unacceptable” because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable “levels” (used to identify the “contamination”); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable “levels”) could result in greater than acceptable risks)?

If no (exposures can not be reasonably expected to be significant (i.e., potentially “unacceptable”) for any complete exposure pathway) - skip to #6 and enter “YE” status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

\_\_\_\_\_ If yes (exposures could be reasonably expected to be “significant” (i.e., potentially “unacceptable”) for any complete exposure pathway) - continue after providing a description (of each potentially “unacceptable” exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to “contamination” (identified in #3) are not expected to be

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<sup>4</sup> If there is any question on whether the identified exposures are “significant” (i.e., potentially “unacceptable”) consult a human health Risk Assessment specialist with appropriate education, training and experience.

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“significant.”

\_\_\_\_\_ If unknown (for any complete pathway) - skip to #6 and enter “IN” status code

Rationale and Reference(s):

The most significant area of contaminated surface and subsurface soil is located under a concrete floor slab in the storage area of the manufacturing building. Exposure is insignificant because of the concrete slab. Any sampling performed in the area is conducted under an appropriate health and safety plan. A health and safety plan will also be in effect during the construction of a soil vapor extraction (SVE) system. The SVE system will remediate contaminated soil to meet industrial soil and soil-to-groundwater leaching PRGs. Appropriate notification will be made to all workers prior to conducting any remediation activities in this area.

Contaminated subsurface soil is located in two areas along the west side of the manufacturing building which is adjacent to an elevated railroad track bed and bluff. Exposure to contaminants is not reasonably expected to be significant because of difficult access, the depth of the contaminated soil (6' to 10'), and the area being overlain by thick gravel. Worker or construction activity has not occurred in the area except during interim remedial activities conducted in the early-1990s and recent environmental sampling. No construction is planned or anticipated other than an SVE system to remediate soil. The SVE system will be installed under an appropriate health and safety plan. Appropriate notification will be made to all workers prior to conducting any remediation activities in the area.

There is a small area located approximately 150' east of the northeast corner of the manufacturing building where the industrial soil PRG for TCE is exceeded in surface and subsurface soil. The soil contamination is located in a grassy area near a flood protection levee along Newman Creek and a truck turn-around. Around-the-clock security is used to prevent trespassing on facility property. No landscaping/maintenance activities are currently conducted in this area nor are any anticipated. If in the future such activities should occur, institutional controls such as fencing, posting, or other health and safety measures will be utilized to prevent significant exposures to workers and trespassers. No construction activities are planned or anticipated in this area other than an SVE system to remediate soil. The SVE system will be installed under an appropriate health and safety plan. Appropriate notification will be made to all workers prior to conducting any remediation activities in the area. This is an isolated area of soil contamination that would represent an insignificant exposure to trespassers and workers.

Applicable references are the November 1993 Final CMS, the U.S. EPA Region 5, September 1996 Statement of Basis, the November 2000 Soil Investigation Report, the January 30, 2001 Response to Comments on the Soil Investigation Report, and the May 2001 Second Addendum to the CMS.

5. Can the “significant” **exposures** (identified in #4) be shown to be within **acceptable** limits?

\_\_\_\_\_ If yes (all “significant” exposures have been shown to be within acceptable limits) - continue and enter “YE” after summarizing and referencing documentation justifying why all “significant” exposures to “contamination” are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

\_\_\_\_\_ If no (there are current exposures that can be reasonably expected to be “unacceptable”)-

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continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

\_\_\_\_\_ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

- YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the EKCO Housewares, Inc. facility, EPA ID # OHD 045 205 424, located at Massillon, Ohio under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.
- NO - "Current Human Exposures" are NOT "Under Control."
- IN - More information is needed to make a determination.

Completed by    (signature) \_\_\_\_\_ Date    7/6/01  
                          (print)    Kenneth S. Bardo  
                          (title)    Environmental Scientist

Supervisor        (signature) \_\_\_\_\_ Date    \_\_\_\_\_  
                          (print)    George Hamper  
                          (title)    Section Chief  
                          (EPA Region or State)    Region 5

Locations where References may be found:

RCRA 7<sup>th</sup> Floor File Room - Administrative Record for RCRA 3008(h) Consent Order.

Contact telephone and e-mail numbers

(name)            Kenneth S. Bardo  
(phone #)        (312) 886-7566  
(e-mail)         bardo.kenneth@epa.gov

**FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.**

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**DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION**

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**RCRA Corrective Action  
Environmental Indicator (EI) RCRIS code (CA750)**

**Migration of Contaminated Groundwater Under Control**

**Facility Name:** EKCO Housewares, Inc.  
**Facility Address:** 359 State Ave., Ext. N.W., Massillon, OH 44648-0560  
**Facility EPA ID #:** OHD 045 205 424

1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

- If yes - check here and continue with #2 below.  
 If no - re-evaluate existing data, or  
 if data are not available skip to #6 and enter "IN" (more information needed) status code.

**BACKGROUND**

**Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

**Definition of "Migration of Contaminated Groundwater Under Control" EI**

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

**Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRAs). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

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**Duration / Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).